

Claims

1. A data acquisition method of non-real time transmitting seismic data acquisition system applied in mountainous region has the following steps:

(1) using the eight digits file names representing absolute time together with three digits extension names representing equipment serial names as the format of original record file names, wherein the eight digits file names and three digits extension names consisting of Arabic numerals 0-9 and English letters;

(2) all original record files names in data acquisition unit being 8 + 3 digits file names and consisting of Arabic numerals 0-9 and English letters; the former eight digits representing years, months, days, hours, minutes, and seconds; and the latter three extension names digits representing the equipment's serial number of data acquisition units;

(3) the detonating units generating SPS format spreadsheets of 3-D land seismic exploration assistant data

according to file names generating method of the step (1), and at the same time, it is appointed that by means of distinguishing intermittence signals generated by the high voltage circuits in the detonating units, the operating systems in the detonating units write the effective explosion's absolute operating time into SPS format spreadsheets of 3-D land seismic exploration assistant data according to the detonating unit's file names generating method when there are intermittence signals, and not record the said absolute operating time in SPS format spreadsheets of 3-D land seismic exploration assistant data when there are no intermittence signals;

(4) combining the multiple detonating unit's SPS format spreadsheets 3-D land seismic exploration assistant data according to SPS format spreadsheets of 3-D land seismic exploration assistant data, which are generated by the multiple detonating units to prepare for retrieving the data; while retrieving, inputting the combined multiple detonating unit's SPS format spreadsheets of 3-D land seismic exploration assistant data into the data retrieve units, which consist of microprocessors

having system bus;

the above file names effectively recorded in SPS format spreadsheets of 3-D land seismic exploration assistant data being on the basis of the former eight digits; connecting the data acquisition units and the data retrieve units by net lines in the way of network; operating the data retrieving programmes in the data retrieve units; connecting the special plugs of the data retrieve units to the special plugs of the data acquisition units; initiating the data retrieving programmes to command the systems to complete the following operations:

a) searching the original file data effectively recorded in the data acquisition units and copying the original file data effectively recorded in the data acquisition units into the data retrieve units;

b) setting the original files data effectively recorded as read-only attribute on the disks of computers in the data acquisition units to prevent to lose the data, and in that case, the data can be retrieved;

c) Deleting the great amount of unnecessary data acquired to release the space of the disks so as to prepare for the next recording.

(5) arranging the data sequences indoors after the data retrieving operations; rearranging the original file data effectively recorded in the multiple data retrieve units into the format recorded in the unit of shots according to “the regulations of the same file names” on the basis of layout to provide to the system of processing data.

2. A data acquisition method of non-real time transmitting seismic data acquisition system applied in mountainous region as claim 1, wherein when the generation of original file names recorded in the data acquisition units are recorded once for every minute, the former eight digits have the following meaning: the first digit of the former eight digits represents years and consists of Arabic numerals and English letters, and is circularly used again and again for 36 years; the second digit represents months and consists of Arabic numerals, and is denoted according to the practical calendar; the fifth and

the sixth digits represent hours and consist of Arabic numerals, and is denoted according to the 24 hours system; and the seventh and the eighth digits represent minutes and consist of Arabic numerals, and is denoted according to the 60 minutes system.

3. A data acquisition method of non-real time transmitting seismic data acquisition system applied in mountainous area as claim 1, wherein when the generation of original file names recorded in the data acquisition units are recorded once for every ten-seconds, the former eight digits have the following meaning: the first digit of the former eight digits represents years and consists of English letters, and is circularly used again and again for 26 years; the second digit represents months and consists of Arabic numerals and English letters; the third digit represents days and consists of Arabic numerals and English letters, and is denoted according to the practical calendar; the fourth and the fifth digits represent hours and consist of Arabic numerals, and is denoted according to the 24 hours system; the sixth and the seventh digits represent minutes and consist of Arabic numerals, and is denoted according to the 60

minutes system; and the eighth digit represents seconds; and every ten-seconds is used as a measure unit.

4. A data acquisition method of non-real time transmitting seismic data acquisition system applied in mountainous area as claim 1, wherein the extension names of the detonating units are .XX, which denote the serial number of making the detonating units, and the latter two digits after the underline consist of Arabic numerals 0-9 and English letters, which are permuted and combined.